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XXV.—*On the Ornithology of Northern Borneo.* By R. BOWDLER SHARPE, F.L.S., F.Z.S., &c. *With Notes* by JOHN WHITEHEAD.—Part III.*

(Plate IX.)

Fam. TURDIDÆ.

76. LOCUSTELLA OCHOTENSIS.

Locustella ochotensis (Midd.) ; Seebohm, Cat. B. v. p. 113 (1881).

a. ♂ ad. Kina Balu, May 10, 1888. Wing 2·8 inches.

b. ♂ ad. Lawas River, April 8, 1886. Wing 2·6 inches.

Sir Hugh Low was the first to meet with this species in Borneo, and his collectors procured in Lumbidan a specimen which is now in the collection of the British Museum, as recorded by Mr. Seebohm (*l. c.*).

[This bird was obtained for me by one of my collectors close to my camp at 1000 feet elevation. It was probably on its way north at the time.]

77. PHYLLOSCOPUS XANTHODRYAS.

Phylloscopus xanthodryas, Swinh. ; Sharpe, Ibis, 1879, p. 255 ; Seebohm, Cat. B. v. p. 422 (1881).

a. ♀ ad. Kina Balu, March 15, 1887.

[Obtained at about 1000 feet.]

* Continued from p. 205.

78. ACROCEPHALUS ORIENTALIS.

Acrocephalus orientalis (T. & S.) ; Salvad. Ucc. Born. p. 251 ; Seeböhm, Cat. B. v. p. 97 ; Sharpe, Ibis, 1876, p. 41, 1877, p. 16, 1879, p. 255.

a. ♂ ad. Tampussak, Feb. 27, 1886.

b. ♀ ad. Tampussak, March 2, 1886.

c, d. ♂ ♀ ad. Labuan, Nov. 30, 1885.

e. Ad. Labuan, Jan. 5, 1886.

[Evidently a migrant. Inside of mouth bright orange ; legs slaty blue.]

79. HORORNIS OREOPHILA.

Horornis oreophila, Sharpe, Ibis, 1888, p. 388.

Cettia oreophila, Sharpe, l. c. p. 387.

a, b, c. ♂ ; *d, e.* ♀ ad. Kina Balu, Feb. 1888.

I have fully described both sexes of this new species (*l. c.*).

[It was only when I got on to the higher slopes of Kina Balu that I met with this Warbler, which occurs between 7000 and 12,000 feet. It is always found frequenting the thick undergrowth. It has a feeble song.]

80. GEOCICHLA AURATA.

Geocichla aurata, Sharpe, Ibis, 1888, p. 478.

a. ♀ juv. Kina Balu, May 10, 1888.

b. ♀ ad. Kina Balu, May 11, 1888.

c. ♂ juv. Kina Balu, May 13, 1888.

d, e. ♂ ♀ ad. Kina Balu, May 15, 1888.

The adult female is exactly like the male. Total length 8 inches, culmen 0·8, wing 4·4, tail 2·75, tarsus 1·35.

The young bird is duller blue-grey, the head and mantle mottled with orange-yellow centres to the feathers, and the wing-coverts with large yellowish-buff spots at their ends ; the lores and sides of the face are orange-buff, with a black line from the eye down to the hinder cheeks, and a black patch on the hinder ear-coverts ; under surface of body bright orange, the throat white, encircled by a black line on the fore neck, the breast-feathers mottled with blackish ends ; abdomen and under tail-coverts white, with scarcely any

yellow tinge. The bill entirely black, without the pale base of *G. citrina*.

In the depth of the orange-colour on the head and sides of face this species almost equals *G. rubecula* of Java, but is not so intensely coloured on the body. It is more richly coloured than the ordinary *G. citrina*, but has the abdomen and under tail-coverts white washed with yellow.

[Bill black ; legs dirty pinkish white ; iris black. It was only when I was on the point of leaving the mountain on my second expedition that I fell in with this Thrush, which I got at about 3000 feet elevation. The young were fully fledged by the beginning of May.]

81. MERULA SEEBOHMI.

Merula seebohmi, Sharpe, Ibis, 1888, p. 386.

a. ♂ ad. Kina Balu, Jan. 31, 1888.

b, c. ♂ ; d, e. ♀ ad. Kina Balu, Feb. 1888.

f. ♀ juv. Kina Balu, Feb. 18, 1888.

The typical female had a few remains of buff centres to the wing-coverts, and was described by me as "immature," but it is practically adult. The fully adult female is scarcely to be distinguished from the male and is only a trifle browner. Wing 4 inches. More than one specimen has the abdomen mottled with black feathers edged with buff ; but these markings are unaccompanied by other signs of nonage.

The young bird has a dusky bill and is more dingy black than the adults, with deep buff streaks down the back and on the wing-coverts, taking the form of small spots at the end of the greater series ; sides of face and ear-coverts dusky blackish, mottled on the cheeks with rufous ; a broad blackish malar streak ; throat uniform rufous buff ; rest of under surface deep rufous, whiter on the abdomen, the fore neck mottled with black-spotted feathers, the sides of the neck uniform black ; the black spots less distinct on the breast ; under tail-coverts as in the adult female.

[Iris black ; bill and feet and ring round the eye king's yellow. This Blackbird was at once recognized by me as new directly I saw it, for I had already met with *M. javanica*

in the highlands of Java. It was the very first bird to greet me when I reached the height of 8000 feet, and while I was preparing my camp one of them came and sat down close to me. In my anxiety to shoot it I got away to a little distance and fired somewhat over it, so as not to injure the specimen too much. I missed it, however, altogether, but instead of flying away it simply went up into a tree above me, and I shot it at once. It fell into the mossy and tangled undergrowth, and gave me a long hunt before I picked it up. I was delighted to see how different it was in appearance from its Javan representative, and I afterwards gave great attention to the procuring of further specimens. Altogether I met with several pairs, and obtained a full-fledged nestling on the 18th of February. I never observed this Blackbird below 8000 feet; but it was seen as high as 12,000 feet, and was most plentiful at about 9000 feet. I never heard it sing or utter any particular cry; but the Javan Blackbird has very much the habits of its English cousin, even to the chattering note with which it takes flight.]

82. MERULA OBSCURA.

Merula obscura (Gm.); Seebohm, Cat. B. v. p. 273.

a. ♀ imm. Labuan, Dec. 4, 1887.

b. ♂ ad. Labuan, Dec. 6, 1885.

c, d. ♂ ♀ ad. Labuan, March 8, 1888.

e. ♀ ad. Labuan, March 16, 1888.

[This bird was plentiful round Kina Balu up to 8000 feet, going in flocks, like Redwings. The note is also somewhat like that of the latter bird. It passes through Labuan every year in considerable numbers during the North-west Monsoon.]

83. ERITHACUS CYANEUS.

Erythacus cyaneus (Pall.); Seebohm, Cat. B. v. p. 303.

a. ♀ ad. Kina Balu, March 20, 1887.

[Shot on the lower hills of Kina Balu at about 1000 feet during my first ascent. It was collected near one of the Dusan villages, but I know nothing of its habits.]

84. *MONTICOLA SOLITARIA*.

Monticola solitaria (P. L. S. Müll.) ; Seebohm, Cat. B. v. p. 319 ; Sharpe, P. Z. S. 1879, p. 249.

Monticola pandoo, Sharpe, Ibis, 1877, p. 13.

a, b. ♂ ad. et juv. Labuan, Dec. 1885.

c. ♀ ad. Labuan, Dec. 9, 1887.

The male is in the intermediate stage called by Mr. Seebohm *Monticola cyanus solitaria*. The young male resembles the female, but is a little more tinged with reddish on the throat and breast.

[Apparently a regular winter migrant through Labuan.]

85. *MYIOPHONEUS BORNEENSIS*.

Myiophoneus borneensis, Slater ; Sharpe, Ibis, 1887, p. 444.

a, b. ♂ ♀ ad. Kina Balu, March 1887.

c, d. ♂ ad. ; ♀ juv. Kina Balu, April 1888.

See my remarks (*l. c.*). The adult female is precisely like the male in plumage.

[Frequenting the borders of rocky streams, where it may be noticed most often in the early morning, hopping about on the large rocks, but disappearing at the least alarm into the thick forest. Met with sparingly from 2000 to 9000 feet on Kina Balu. This bird has a pleasant whistling note, which it utters when perched on the lower boughs of high trees. I saw a nest of this species which was placed in a crevice in some high and precipitous rocks over a small river, but it was impossible to reach the spot. The nest, I believe, contained young, judging by the frequent visits of the old bird ; this was on the 23rd April, 1888.

Iris dark brown ; feet and bill black.]

86. *TRICHIXUS PYRRHOPYGUS*.

Trichixus pyrrhopygus, Less. ; Salvad. Ucc. Born. p. 224 ; Sharpe, Ibis, 1877, p. 13 ; id. Cat B. vii. p. 32.

a. ♂ ad. Benkoka, Sept. 20, 1885.

b, c. ♂ ♀ ad. Benkoka, Oct. 11-14, 1885.

d. ♂ juv. Benkoka, Oct. 27, 1885.

[Bill black ; iris black ; feet flesh-colour in the adult male.

Only met with in this locality, where it frequented the lower growth in the true forest.]

87. *COPSYCHUS AMÆNUS.*

Copsychus amænus (Horsf.) ; Salvad. Ucc. Born. p. 255 ; Sharpe, P. Z. S. 1881, p. 798 ; Blasius, Verh. z.-b. Gesellsch. Wien, xxxiii. p. 64 (1883).

a, b. ♂ ♀. Labuan, Aug. 1885.

[This is one of those species that frequent the haunts of man. I have never seen this bird far from the native kampongs ; in the early mornings it may often be seen sitting on the tops of houses singing, and being answered by some rival near at hand. The note is pleasing, and the bird is honoured by the name of the " Straits Nightingale." During the heat of the day it frequents the thick fruit-trees and more shady spots ; it often settles on the ground, when it raises the tail perpendicularly, in fact over the back.

Native name " Kalageau."

Is met with on Kina Balu up to 1000 feet. In the beginning of May I found the eggs. They are three or four in number, of a pale blue, thickly blotched all over with reddish brown, especially at the larger end, where the blue under surface is entirely covered. Axis 0.95, diam. 0.65.

The nest is composed entirely of fine roots, and hidden away amongst the overhanging roots of some tree, or in the branches. I once saw a nest within a few yards of a native's house.]

88. *CITTOCINCLA STRICKLANDI.*

Cittocincla stricklandi (Motley & Dillw.) ; Sharpe, Cat. B. vii. p. 89 ; id. Ibis, 1879, p. 255.

Kittacincla stricklandi, Salvad. Ucc. Born. p. 340.

a. ♂ ad. Kina Balu, March 23, 1887.

b. ♂ juv. Kina Balu, March 23, 1887.

c. ♂ ad. Labuan, Aug. 14, 1885.

d. ♂ ad. Labuan, Sept. 8, 1885.

[One of the commonest forest-species, where it may be

met with frequenting the lower growth and branches of the high trees. Bill and eye black, feet brown.

Native name "Pleata sungei," *i. e.* "River Lamp," no doubt from the yellow breast of the bird.]

Fam. PYCNONOTIDÆ.

89. *ÆGITHINA VIRIDISSIMA*.

Ægithina viridissima (Bp.); Sharpe, Cat. B. vi. p. 6.

Iora viridissima, Salvad. Ucc. Born. p. 192; Sharpe, Ibis, 1879, p. 256; Blasius, Verh. zool.-bot. Gesellsch. Wien, xxxiii. p. 56.

a. ♂ ad. Labuan, Dec. 4, 1887.

b. ♂ ad. Benkoka, Nov. 4, 1885.

[This was recorded for the first time from Labuan by Governor Ussher. It is everywhere a scarce bird.]

90. *ÆGITHINA VIRIDIS*.

Ægithina viridis (Bp.); Sharpe, Cat. B. vi. p. 11; id. P. Z. S. 1881, p. 796.

Iora scapularis, Salvad. Ucc. Born. p. 190; Sharpe, Ibis, 1877, p. 15; Brüggem. Abhandl. Bremen, v. p. 458 (1877); Blasius, J. f. O. 1882, p. 250.

a. ♀ ad. Labuan, July 6, 1885.

b. ♂ ad. Labuan, Aug. 20, 1885.

[Very plentiful in Labuan, where it breeds. The egg procured by me differs slightly from that described by Mr. Sharpe. The ground-colour is creamy white, and the spots are nearly absent on the body of the egg, but collect in a zone round the larger end.]

91. *CHLOROPSIS ZOSTEROPS*.

Chloropsis zosterops, Vig.; Sharpe, Cat. B. vi. p. 204; id. P. Z. S. 1881, p. 796.

Phyllornis sonneratii, Salvad. Ucc. Born. p. 193; Sharpe, Ibis, 1877, p. 15, 1879, p. 256; Brüggem. Abhandl. Bremen, v. p. 458 (1877); Blasius, J. f. O. 1882, p. 251; id. Verh. z.-b. Ges. Wien, xxxiii. p. 58 (1883).

a. ♂ ad. Benkoka, Oct. 22, 1885.

b. ♂ ad. Lawas River, March 28, 1886.

[A common bird in Northern Borneo.]

92. CHLOROPSIS CYANOPOGON.

Chloropsis cyanopogon (T.) ; Sharpe, Cat. B. vi. p. 32.

Phyllornis cyanopogon, Salvad. Ucc. Born. p. 194 ; Sharpe, Ibis, 1876, p. 40, 1877, p. 15, 1879, p. 256 ; Brüggem. Abhandl. Bremen, v. p. 459 (1877) ; Blasius, J. f. O. 1882, p. 251 ; id. Verh. z.-b. Ges. Wien, xxxiii. p. 58 (1883).

a. ♂ ad. Benkoka, Oct. 20, 1885.

93. CHLOROPSIS KINABALUENSIS. (Plate IX.)

Chloropsis kinabaluensis, Sharpe, Ibis, 1887, p. 445.

Chloropsis flavocincta, Sharpe, ibid.

a, b. ♂ ♀ ad. Kina Balu, Feb. 24, 1887.

c, d. ♂ ♀ ad. Kina Balu, March 5, 1887.

e. ♀ ad. Kina Balu, April 2, 1887.

f. ♀ ad. Kina Balu, May 11, 1888.

g. ♂ juv. Kina Balu, Feb. 24, 1887.

On looking over Mr. Whitehead's series there is no longer any doubt possible with regard to the sexes of this green Bulbul. *Chloropsis kinabaluensis* is the female of *C. flavocincta*, as Mr. Whitehead said at the time when he shot them. I was led away by the black throat of the hen bird, so remarkable a feature in the species, and so unexpected in the genus *Chloropsis*. I retain the name of *kinabaluensis* for the bird, because it is almost certain to be found to be an inhabitant of Kina Balu only, and, secondly, because there are other allied species with a yellow collar, so that the name of *flavocincta* is not distinctive. The extent of the blue moustache of the male varies greatly, being in some large and broad and in others absent altogether ; it is sometimes quite light blue.

A young male is very like the old female, but is paler green, and with the emerald-green collar round the black throat less distinct. The lores and a patch near the base of the cheeks are black, but the malar line and the rest of the cheeks are emerald-green, like the sides of the face. This bird was shot on the 10th of May. Another immature male, procured on the 21th of February, has the face black, like the old male, a good deal of yellow on the forehead, and the emerald-green collar has a good many yellow feathers

intermixed, showing an approach to the mature plumage of the male.

The young female is like the old female, but has the black on the throat more restricted, and has no bright shoulder-patch. The black is confined to the lores and feathers below the eye, and does not extend across the fore part of the cheeks, which are green, like the ear-coverts.

[Iris dark brown; bill black; feet scaly green. Met with on my first expedition, frequenting the higher branches of the jungle-trees at altitudes of from 3000 to 4000 feet. My efforts to find this bird in 1888 were for months unsuccessful, and I began to fear that I should have to descend the mountain without procuring any more specimens. I was most anxious to obtain some, as I wished to prove conclusively that the birds to which Mr. Sharpe had given separate names were but sexes of one and the same species. I therefore organized a special excursion for the purpose of obtaining a series of specimens, and at about 1800 feet I found the species fairly plentiful, and procured the young birds which Mr. Sharpe admits to have convinced him of the correctness of my original determinations.]

94. HEMIXUS CONNECTENS.

Hemixus connectens, Sharpe, Ibis, 1887, p. 446.

a, b. ♂ ad. Kina Balu, Feb. 14-21, 1887.

c. ♂ ad. Kina Balu, March 13, 1887.

d, e. ♂ ad. Kina Balu, April 6, 1888.

f. ♀ ad. Kina Balu, May 4-10, 1888.

The female is like the male. Total length 7 inches, culmen 0.8, wing 3.5, tail 2.85, tarsus 0.6. The plumage of the upper surface gets worn to a very pale brown, and some of the specimens procured in February are changing to a dark ashy brown.

[Iris brown; feet and bill black. Found during the first expedition from 3000 to 5000 feet. In 1888 it was met with again at the same level as the *Chloropsis*. These birds were in small companies, apparently family parties, after the nesting-season, and many of them seemed to be in immature

plumage. Like *Criniger ruficrissus*, this Bulbul has a peculiar appearance at a distance. It sits with its fluffy throat-feathers puffed out, so much so that my men often thought the bird had a lump of wool in its bill for nesting-purposes, and spared the bird in the hopes of finding its nest.]

95. *HEMIXUS MALACCENSIS*.

Hemixus malaccensis (Blyth); Sharpe, Cat. B. vi. p. 53 (1881); id. P. Z. S. 1881, p. 797.

Hypsipetes malaccensis, Salvad. Ucc. Born. p. 202; Sharpe, Ibis, 1879, p. 256.

a. ♂ ad. Sandakan, April 25, 1885.

[Legs and bill dark brown; iris dark reddish brown.]

96. *MICROPUS MELANOLEUCUS*.

Micropus melanoleucus (Eyton); Sharpe, Cat. B. vi. p. 69.

Microtarsus melanoleucus, Salvad. Ucc. Born. p. 202.

Ixus melanoleucus, Brüggem. Abhandl. Bremen, v. p. 458 (1877).

a. ♂. Lawas River, April 2, 1886.

[Iris, bill, and feet black.]

97. *MICROPUS MELANOCEPHALUS*.

Micropus melanocephalus (Gm.); Sharpe, Cat. B. vi. p. 65; id. P. Z. S. 1881, p. 797.

Brachypodius melanocephalus, Salvad. Ucc. Born. p. 201.

Brachypodius immaculatus, Sharpe, Ibis, 1876, p. 39, 1877, p. 14.

a. ♀ ad. Kina Balu, March 25, 1887.

b. ♂ ad. Kina Balu, April 2, 1887.

98. *CRINIGER PHÆOCEPHALUS*.

Criniger phæocephalus (Hartl.); Salvad. Ucc. Born. p. 207 (1874); Sharpe, Ibis, 1877 p. 14; id. Cat. B. vi. p. 74 (1881); id. P. Z. S. 1881, p. 797.

a. ♂ ad. Benkoka, Nov. 5, 1885.

99. *CRINIGER RUFICRISSUS*.

Criniger ruficrissus, Sharpe, P. Z. S. 1879, p. 248; id. Cat. B. vi. p. 81 (1881).

- a.* ♂ ad. Kina Balu, Jan. 11, 1888.
b, c. ♂ ♀ ad. Kina Balu, Feb. 18-24, 1887.
d, e. ♂ ♀ ad. Kina Balu, March 23, 1888.
f, g. ♂ ♀ ad. Kina Balu, April 3, 1888.

The sexes are alike and measure as follows:—

- a.* ♂ ad. Total length 8·8 inches, culmen 0·85, wing 4·35, tail 4·9, tarsus 0·8.
b. ♀ ad. Total length 8·5 inches, culmen 0·75, wing 4·15, tail 3·9, tarsus 0·8.

[Bill black, lower mandible bluish white; feet pinkish brown; iris light brown. On Kina Balu, to which mountain this species appears to be confined, it is only found in the lower valleys at about 3000 feet, among the tropical forest-growth. It is generally seen searching about high up in the trees, and has a loud disagreeable note, but at times whistles prettily.]

100. TRICHOLESTES CRINIGER.

Tricholestes criniger (Blyth); Sharpe, Cat. B. iv. p. 89; id. P. Z. S. 1881, p. 797.

Tricholestes criniger, Salvad. Ucc. Born. p. 205, tav. v. fig. 1; Sharpe, Ibis, 1877, p. 14, 1879, p. 257.

a, b. ♂ ♀ ad. Benkoka, Nov. 5, 1885.

101. TRACHYCOMUS OCHROCEPHALUS.

Trachycomus ochrocephalus (Gm.); Salvad. Ucc. Born. p. 196 (1874); Sharpe, Ibis, 1876, p. 38; id. P. Z. S. 1879, p. 246; id. Ibis, 1879, p. 256; id. Cat. B. vi. p. 93 (1881); Brüggem. Abhandl. Bremen, v. p. 458 (1877).

a, b. ♂ ♀ ad. Tampussak River, Feb. 16, 1886.

[This bird ascends Kina Balu to about 1000 feet.]

102. PYCNONOTUS ANALIS.

Pycnonotus analis (Horsf.); Salvad. Ucc. Born. p. 197 (1874); Sharpe, Ibis, 1876, p. 38, 1879, p. 256; id. P. Z. S. 1881, p. 797; id. Cat. B. vi. p. 140 (1881).

a. ♂ ad. Kina Balu. Feb. 11, 1888.

[One of the commoner birds of the Malayan region. It ascends Kina Balu only to about 1000 feet. These Bulbuls

are seen in Labuan towards evening in swarms going through the mango-trees, where they roost in large flocks. At this time they are very noisy. They are common enough also on Kina Balu at a low elevation, and I have known a Dusan boy to go out of an evening and catch three or four with his "gutta" stick. It nests on the mountain.

The eggs are of the usual Bulbul type, with the ground-colour pinkish white, thickly mottled with red spots and underlying grey markings. The shape varies a good deal. Axis 0·85–1·0, diam. 0·65–0·7.]

103. PYCNONOTUS SIMPLEX.

Pycnonotus simplex, Less.; Sharpe, Cat. B. vi. p. 153, pl. ix. (1881); id. P. Z. S. 1881, p. 796.

Iaxus simplex, Brüggem. Abhandl. Bremen, v. p. 458 (1877); Blasius, Verh. z.-b. Gesellsch. Wien, xxxiii. p. 59 (1883).

a. ♂ ad. Kina Balu, May 5, 1888.

[Ascends Kina Balu up to about 1000 or 1500 feet. I also shot one in Malacca, which had a white iris, like the specimen figured by Mr. Sharpe in the 'Catalogue of Birds.']

104. RUBIGULA MONTIS.

Rubigula montis, Sharpe, P. Z. S. 1879, p. 247.

Otocompsa montis, Sharpe, Cat. B. vi. p. 162.

a. ♂ ad. Kina Balu, Jan. 14, 1888.

b, c. ♂ ♀ ad. Kina Balu, Feb. 25, 1888.

d. ♂ ad. Kina Balu, March 18, 1888.

e. ♀ ad. Kina Balu, April 2, 1887.

f. ♂ ad. Kina Balu, May 5, 1888.

To the original description may be added that the sexes are alike in colour, and measure as follows:—

♂ ad. Total length 6 inches, culm. 0·55, wing 3·0, tail 2·7, tarsus 0·65.

♀ ad. Total length 6 inches, culm. 0·6, wing 3·1, tail 2·85, tarsus 0·7.

[Iris dark brown; bill and feet black. Only met with on Kina Balu at 3000 feet, frequenting the rough growth which springs up on the old rice-fields. It is decidedly scarce.]

105. OREOCTISTES LEUCOPS, Sharpe, Ibis, 1888, p. 388, pl. ix. fig. 1.

a, b. ♂; *c, d.* ♀. Kina Balu, Feb. 1888.

This species has been fully described (*l. c.*). The genus is close to *Kelaartia* of Ceylon, but has no auricular tufts, a more rounded tail, and a very peculiar short bill.

[Iris, bill, and feet black. It was only met with at a great altitude on Kina Balu, and is apparently very local. I found it between 7000 and 8000 feet, and it was mostly seen near the latter elevation. It frequented the scrub in parties of two and three.]

106. IRENA CRINIGERA.

Irena criniger, Sharpe, Cat. B. vi. p. 176; Brüggem. Abhandl. Bremen, v. p. 458 (1877); Sharpe, Ibis, 1879, p. 257.

Irena puella (nec Lath.), Salvad. Ucc. Born. p. 176.

Irena cyanea (nec Bebbie), Blasius, J. f. O. 1882, p. 218.

Irena turcosa (nec Wald.), Sharpe, Ibis, 1876, p. 44.

a. ♂ ad. Benkoka, Sept. 21, 1885.

b. ♂ juv. Lawas River, May 1, 1886.

c. ♀ ad. Kina Balu, March 20, 1887.

[Found on Kina Balu up to 1000 feet.]

Fam. HENICURIDÆ.

107. HENICURUS BORNEENSIS, sp. n.

♂. Similis *H. sinensi*; plagâ frontali albâ, rotundatâ; rectricibus apicaliter maculatis, sicut in *H. leschenaulti* notatis; supracaudalibus et subcaudalibus cervino lavatis. Long. tot. 9·5 poll. Angl., culm. 0·9, alæ 4·0, caudæ 4·95, tars. 1·2.

♀ mari similis. Long. tot. 8·8 poll. Angl., culm. 0·9, alæ 4·0, caudæ 4·5, tars. 1·1.

a. ♂ ad. Kina Balu, March 1, 1888.

b. ♂ ad. Kina Balu, March 29, 1888.

c. ♀ ad. Kina Balu, April 13, 1888.

d, e. ♂ ♀ juv. Kina Balu, April 14, 1888.

[Frequents the rocky beds of the mountain-torrents, seeming to prefer the deep dark gorges, where little or no sunlight enters. This species is rather difficult to obtain, being very shy, and flying out of shot, or more often out of sight, into

the forests which border the streams. The note is a pleasant whistle, which is always uttered when the bird is alarmed, before taking flight. I have seen three or four flying after each other up these dark gorges, and the tail seems more like a streamer, waving up and down with every motion of the bird. It is fairly plentiful on some of the many streams which come down from Kina Balu, from 1000 to 3000 or 4000 feet; but on others, which were apparently too broad and open, I did not notice the bird.

Eye and bill black; legs and claws white.]

108. *HYDROCICHLA FRONTALIS*.

Hydrocichla frontalis, Blyth; Sharpe, Cat. B. vii. p. 321; id. Ibis, 1879, p. 255.

Henicurus frontalis, Salvad. Ucc. Born. p. 258; Sharpe, P. Z. S. 1881, p. 798.

a, b. ♂ ♀ ad. Benkoka, Oct. 20, 1885.

c. ♂ ad. Benkoka, Oct. 23, 1885.

The specimens brought by Mr. Whitehead confirm the characters given for the distinction of the sexes in the 'Catalogue' (*l. c.*).

[This species is apparently a lowland representative of the last, agreeing in habits; but those I shot frequented a deep muddy ditch in the tideway of a river not far from the coast, and were very wary, requiring a great deal of work to bring them to bag.

Eye and bill black; legs and claws white.]

Fam. TIMELIIDÆ.

109. *BURNESIA SUPERCILIARIS*.

Burnesia superciliaris (Salvad.); Sharpe, Cat. B. vii. p. 206.

Prinia superciliaris, Salvad. Ucc. Born. p. 249; Sharpe, Ibis, 1877, p. 16, 1879, p. 259.

a. ♀ ad. Labuan, July 13, 1885.

b. ♂ ad.; *c.* Juv. Labuan, July 26, 1885.

d. Juv. Labuan, Aug. 15, 1885.

[Iris light hazel; bill black; feet light yellow in adult male. In the young the bill and feet are light yellow and the iris light brown.

Met with in the P'lang plains and other open places. This little bird makes a very audible snipping noise with its wings when making its short flights from one bush to another. The nest is a round structure, placed well off the ground amongst the stems of coarse grass or ferns; it is composed of grasses, lined with the same material, and entered from a hole in the side. Eggs three, of bright terra-cotta red, slightly deeper at the larger end; laid about the middle of May. Axis 0.6, diam. 0.45.]

110. ORTHOTOMUS RUFICEPS.

Orthotomus ruficeps (Less.); Salvad. Ucc. Born. p. 248; Sharpe, Cat. B. vii. p. 224; id. Ibis, 1879, p. 259; id. P. Z. S. 1881, p. 798; Brüggem. Abhandl. Bremen, v. p. 460 (1877).
a, b. ♂ ad. Kina Balu, March 20, 1887.
c. ♂ ad. Kina Balu, March 25, 1887.

[One of the omen-birds (or *angī*) of the Teutongs. Only procured on my first ascent of the mountain at a height of 1000 feet.]

111. ORTHOTOMUS CINERACEUS.

Orthotomus cineraceus, Blyth; Salvad. Ucc. Born. p. 248; Sharpe, Cat. B. vii. p. 225; id. Ibis, 1879, p. 259; id. P. Z. S. 1881, p. 798; Brüggem. Abhandl. Bremen, v. p. 460 (1877).

Orthotomus borneonensis, Sharpe, Ibis, 1876, p. 41, pl. ii. fig. 1.

a, b. ♂ ♀ ad. Kina Balu, March 1887.

[These two species of Tailor-birds are similar in their habits, affecting the same localities, and often found in company. They frequent the more open places near the edges of the forest, where they hunt the low growth for their insect food. I met with both species up to 1000 feet on Kina Balu.

Native name "Chuk bodo."]

112. PHYLLERGATES CINEREICOLLIS.

Phyllergates cinereicollis, Sharpe, Ibis, 1888, p. 479.

a. Ad. Kina Balu, Feb. 15, 1887.

b. ♂ ad. Kina Balu, Feb. 10, 1888.

c, d. ♂ ♀ ad. Kina Balu, March 26, 1888.

e. ♀ ad. Kina Balu, May 26, 1888.

Adult male. General colour above olive-green from the mantle to the upper tail-coverts; lesser wing-coverts like the back; median and greater coverts, bastard-wing, primary-coverts, quills, and tail-feathers dusky brown, with olive-green margins; crown of head orange-rufous to the occiput; the nape washed with olive-green; hind neck clear ashy grey, like the sides of the neck, and forming a broad collar; lores blackish, surrounded by a narrow superciliary line, which becomes bright yellow above the eye and white again above the ear-coverts; sides of face and ear-coverts dark ashy grey; cheeks and throat, fore neck, and chest ashy white, becoming purer white on the breast; sides of throat and breast ashy grey; abdomen, entire sides of body, flanks, and under tail-coverts bright yellow; thighs yellow, with dusky bases; under wing-coverts and axillaries yellow; quills beneath dusky, white along the inner edge. Total length 4.4 inches, culmen 0.65, wing 1.85, tail 1.85, tarsus 0.8.

Adult female. Similar to the male. Total length 4 inches, culmen 0.6, wing 1.7, tail 1.6, tarsus 0.7.

[I met with one specimen of this species during my first expedition in 1887 in a bamboo-jungle at 4000 feet on Kina Balu, but it was so much destroyed by shot as to be useless for identification. During the next expedition it was found more plentifully in the stretch of old forest close to the foot of the mountain, where it frequented the low growth and large jungle-plants near the ground.

Bill and eye black; legs light brown, paler at the back.]

113. CYANODERMA BICOLOR.

Cyanoderma bicolor (Blyth); Sharpe, P. Z. S. 1875, p. 105; id. Ibis, 1876, p. 40, 1877, p. 11.

Cyanoderma erythropterum (nec Bl.), Salvad. Ucc. Born. p. 213.

Mixornis bicolor, Sharpe, Cat. B. vii. p. 581.

Timelia bicolor, Brüggem. Abhandl. Bremen, v. p. 460 (1877).

a. Ad. Benkoka.

[Fairly common in the low growth in swampy jungle and in old forest.]

114. STAPHIDIA EVERETTI.

Staphidia everetti, Sharpe, Ibis, 1887, p. 447.

a. ♀ ad. Kina Balu, Jan. 19, 1888.

b. ♀ ad. Kina Balu, Feb. 20, 1887.

c. ♂ ad. Kina Balu, March 2, 1887.

d. ♂ ad. Kina Balu, April 7, 1888.

e. ♀ ad. Kina Balu, May 4, 1888.

The length of wing in the female should be 2·5 inches.

[Fairly common in the old forest between 3000 and 4000 feet on Kina Balu, where they pass from one tree to another in small twittering flocks of from six to nearly a dozen individuals. The crest is often raised and the throat puffed out. This *Staphidia* builds its nest in small holes in the river-banks and in other suitable spots in the forest; it is composed of moss and lined with fine roots, and contains three eggs, which are white and spotted all over, especially at the larger end, with dark reddish-brown, and may be found about the 13th of March. Axis 0·7, diam. 0·45.

Eye dark brown; bill black; legs brown.]

115. HERPORNIS BRUNNESCENS.

Herpornis brunescens, Sharpe, Ibis, 1876, p. 41, 1879, p. 257; id. Cat. B. vii. p. 637; id. P. Z. S. 1881, p. 797.

a. ♂ ad. Sandakan, April 24, 1885.

b, c. ♂ ♀ ad. Kina Balu, May 13, 1888.

Mr. Whitehead's specimens confirm the distinctness of the Bornean race.

[Legs flesh-colour; bill black, lower mandible flesh-colour; iris dark brown.

I shot my first specimen in a bit of old forest near Sandakan, and did not again meet with this species until years after, when I found it in small companies at an altitude of 5000 feet on Kina Balu.]

116. CHLOROCHARIS EMILIÆ.

Chlorocharis emiliæ, Sharpe, Ibis, 1888, p. 392, pl. xi. fig. 1.

a. ♂ ad. Kina Balu, Jan. 28, 1888.

b, c. ♂ ♀ ad. Kina Balu, Feb. 21-27, 1888.

d. ♂ ad. Kina Balu, March 1, 1888.

[The first notice I find of this species is in Mr. St. John's book, 'Life in the Forests of the far East,' where he mentions, during his first expedition to this mountain, that "the Ida'an (Dusans), during the day, amused themselves in trying to secure some small twittering birds, which looked like Canaries, with a green tint on the edges of their wings, but were unsuccessful. They shot innumerable pellets from their blowpipes, but did not secure one. In fact, they did not appear to use this instrument with any skill." This note was made nearly thirty years ago, and it was only in the beginning of 1888 that the first of these "twittering birds" was sent to this country. I met with this species at from 6000 to 12,000 ft. on Kina Balu; it frequents the low trees in small flocks, and is, perhaps, the commonest bird after 7000 feet. I shot a young bird on the 12th of February which had not long left the nest; it is coloured much the same as the adult, but is less vivid.

Eye hazel; upper mandible brown, nostrils black, lower mandible pale yellowish orange; feet brown, toes more yellowish, claws brown.]

117. MACRONUS PTILOSUS.

Macronus ptilosus, J. & S.; Salvad. Ucc. Born. p. 216; Sharpe, Ibis, 1876, p. 40, 1877, p. 11, 1879, p. 258; id. P. Z. S. 1881, p. 797; Brüggem. Abhandl. Bremen, v. p. 460 (1877); Blasius, Verh. z.-b. Ges. Wien, xxxiii. p. 62 (1883).

a. ♂ ad. Lawas River, March 27, 1886.

b, c. ♂ ad. Benkoka, Oct. 26, 1885.

d, e. ♂ ♀ ad. Kina Balu, Jan. 17, 1888.

[This, though common, is a really beautiful bird. It frequents the low growth in old forest, in the thickest and most entangled places. Is found only a few hundred feet up on the spurs of Kina Balu. It makes a large nest, which is

hidden away in the thick rank undergrowth. The nest is a loosely constructed ball of dead leaves, lined inwardly with fine roots, and the entrance is often somewhat hidden with fresh green moss stuck in the nest. The eggs are three, and glossy white. The nest was taken on the 17th January. Axis 0·8, diam. 6·6.

The native name is "Konkut Landak" (porcupine). Konkut is the native name of all Timeliine birds; the name "landak" is applicable to the long white-stemmed feathers which stream from the sides and back.

Bill and feet black; skin round the eye and bare space on the sides of the neck dark French blue. These bare spaces are also found on the neck of *Stachyris maculata*, which has also long feathers on the back; so perhaps these genera are only slightly removed.]

118. ALCIPPE CINEREA.

Alcippe cinerea, Blyth; Sharpe, Cat. B. vii. p. 622.

a, b. ♂ ad. Benkoka, Sept. 16, 1885.

c. ♂ ad. Benkoka, Nov. 1, 1885.

d. ♀ ad. Kina Balu, May, 8, 1888.

[Found on Kina Balu up to 2000 feet.]

[To be continued.]

XXVI.—*Contributions to the Anatomy of the Hoatzin* (*Opisthocomus cristatus*), with particular Reference to the Structure of the Wing in the Young. By FRANK E. BEDDARD, M.A., F.Z.S., Prosector to the Zoological Society of London, Lecturer on Biology in the Medical School of Guy's Hospital.

SOMETIME since Mr. Selater obtained from the Royal Society a grant of money for the purpose of acquiring specimens of the young of the Hoatzin; for some remarkable statements concerning the development of this bird, lately published in America, as well as the general interest attaching to this very isolated type, seemed to render a renewed study of its structure desirable. Mr. Quelch, the Superintendent of the

